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INDUSTRIAL EDUCATION FOR EXCEPTIONAL CHILDREN.

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THE DEVELOPMENT OF APPROPRIATE PROGRAMS FOR EXCEPTIONAL STUDENTS BY INDUSTRIAL EDUCATION PERSONNEL IS BOTH NECESSARY AND DESIRABLE BECAUSE OF THE BENEFITS STUDENTS DERIVE AND BECAUSE OF THE BASIC OBLIGATIONS OF THE PROFESSION. BOTH SPECIAL EDUCATION AND INDUSTRIAL EDUCATION ARE BASED ON THE SAME ASSUMPTIONS, ARE INTEGRAL AREAS OF PUBLIC EDUCATION, HAVE A COMMON BACKGROUND AND DEVELOPMENT, ARE OBLIGATED BY THEIR OBJECTIVES TO SERVE THE SAME STUDENTS, AND ARE WORKING WITH STUDENTS WHO ARE MORE SIMILAR THAN DIFFERENT. EXCEPTIONAL STUDENTS ARE MOST OFTEN CLASSIFIED ACCORDING TO INTELLECTUAL, PHYSICAL, SOCIAL, OR EMOTIONAL TRAITS. THEY HAVE HAD LESS OPPORTUNITY THAN NORMAL STUDENTS TO HAVE EXPERIENCES, ESPECIALLY INDUSTRIAL, THAT DEVELOP THE UNDERSTANDINGS AND ATTITUDES WHICH WILL ENABLE THEM TO MAKE BETTER CHOICES. BECAUSE THE PURPOSE OF INDUSTRIAL EDUCATION IS TO INTERPRET AN INDUSTRIAL SOCIETY, BECAUSE ITS TEACHERS ARE PROFICIENT IN APPROPRIATE CONTENT AND PRINCIPLES, AND BECAUSE IT HAS ACCEPTED THE PRACTICE OF ESTABLISHING SPECIAL SECTIONS FOR PARTICULAR GROUPS, LOGICALLY IT SHOULD HAVE A PROGRAM FOR EXCEPTIONAL CHILDREN. SUCH PROGRAMS REQUIRE SMALLER CLASSES TO NARROW THE ABILITY RANGE WITHIN THE GROUP. VOCATIONAL CONSIDERATIONS MUST START AT AN EARLIER AGE AND BE GIVEN MORE ATTENTION. THE PROGRAM MUST PREPARE MANY FOR THE WORLD OF WORK SINCE A MAJORITY OF THE GROUP WILL NOT ATTEND OTHER POST-SECONDARY PROGRAMS. THE AMOUNT AND KIND OF TRAINING WILL DETERMINE THEIR PLACE IN THE WORLD. INDUSTRIAL EDUCATION HAS AN IMPORTANT ROLE IN THAT DETERMINATION. THIS PAPER WAS PRESENTED AT THE DELAWARE VOCATIONAL ASSOCIATION CONVENTION AND ILLINOIS INDUSTRIAL EDUCATION ASSOCIATION MEETING (PEORIA, FEBRUARY 26, 1965). (EM)

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INDUSTRIAL EDUCATION

FOR

EXCEPTIONAL CHILDREN

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INDUSTRIAL EDUCATION FOR EXCEPTIONAL CHILDREN

The topic for consideration during this program may appear to be quite new to many of you--and somewhat out of place. I would like to call your attention to the fact that all histories of industrial and vocational education cite the early schools of Pestolozzi, the industrial and reform schools of Europe, the "ragged schools" of England and many other early programs of training for an occupation. On almost every case, the students in these early attempts at "industrial education" would be eligible for, and could most effectively benefit from, one of the several programs presently encompassed by the programs included in one of the categories of special education--or, more recently, and appropriately called education for exceptional children.

A number of articles have been published and many programs at the local, state and national level have been devoted to the relationships between the two fields. Most commonly, this has been a presentation of operating programs at the local level. Local teachers and administrators are regularly faced with the problem of developing appropriate programs for a large segment of their student population who have needs not adequately and/or effectively met by the traditional or existing programs.

Program development for the exceptional student is generally assigned, or left by default, to the special teacher. In an attempt to develop a program which will yield maximal benefit to the exceptional student, he will give a great amount of attention to seeking ways and means of developing an understanding of the industrial society in which his students must live and earn a living if they are to achieve the level of self-supporting, contributing citizens. Sooner or later this teacher seeks out the industrial education staff for help. On the basis of the special teacher's analysis of student needs, appropriate industrial education experience is one of the most desirable features of any program for exceptional children.

Industrial education teachers probably have had more experience with the "special" student than any other subject-matter specialist in the educational system. All of you, I am sure, can cite many examples of outstanding benefit to special students gained from shop experiences. Yet time and again, the wails of "dumping ground," "what am I supposed to do with them," and "this is not the job of industrial education" fill the air at meetings such as this.

I propose that developing appropriate industrial education programs for the exceptional student is both necessary and desirable from the point of view of student benefits derived and meeting the basic obligations of our profession. We will improve our programs in all phases by such development. If we are not willing to accept this challenge, then, we had better give the money and space to some other group who will. I will attempt to develop this position in the remainder of this presentation.

I suggest a basic tenet of a democratic public school system is to offer an education designed to meet the needs of all the people. We have prepared teachers and provided programs designed for the average. Some modification has been made where necessary to accommodate, or tolerate, those who do not fit. We still have those among us who would educate the best and expel the rest. This is carrying "special education" to the extreme.

The parents in any community send us the best students they have, they send us <u>all</u> they have. If we are to uphold their faith in the schools, we have to find ways and means of gaining the optimum success with each individual.

Industrial education teachers, and the profession as a whole, professes to meet individual needs in the special atmosphere of the shop situation. Some excellent examples of such programs are in existence. More often than not, however, the teacher is almost wholly unprepared to recognize the special needs or to modify programs accordingly for those students who deviate from the norm to any degree. Problems of facilities, scheduling and administration may make it impossible for the teacher to attempt modifications that appear desirable. All too often the result is an attempt on the part of the individual student to adapt to the program as it is offered; the resulting loss of interest and achievement, socially and intellectually, can never be regained.

I will attempt to show that special education and industrial education are: (1) based on the same basic assumptions, (2) integral areas of the larger system of public education, (3) have a common background, and development, (4) obligated by their own stated objectives to provide services for the same students, and (5) working with students whose similarities are much more common and important than their differences.

Definitions and Classification

Most people coming into contact with special education for the first time feel it is an entirely new development. The expansion of services in the public schools has been so rapid since about 1940 that many persons in the field are unaware of its long history. The special education student, or the exceptional child as is becoming the more common terminology, is somewhat difficult to define. The general term is used to represent many different medical and/or psychological groupings of children. The most commonly accepted definition is

> An exceptional child is one who deviates intellectually, physically, socially or emotionally so markedly from what is considered to be normal growth and development that he cannot receive maximum benefit from the regular school programs and requires a special class or supplementary instruction or services.

This is a relatively loose definition; however, it is sufficiently accurate to be operable. The question of what is normal and how much deviation from this group constitutes an atypical case must always be decided on an individual basis in light of a complete evaluation. The important thing to remember at all times is that all children, normal or exceptional, have the same basic needs. The exceptional child differs in degree and not in kind.

There is very little difficulty in achieving agreement on the "cardinal principles" of education or the "imperative needs of youth." The exceptional child is included without question. However, when we move from this realm to the specifics of planning and operating programs, the specific objectives and distinguishing characteristics of each group must be considered. Program modifications are made to accommodate, reduce, or correct deficiencies while at the same time capitalizing on developing areas of ability. The basic principles and objectives of education, industrial and special, remain the same.

The more general classifications of exceptional students are attempted on the four criteria, or qualities, given in the definition; intellectual, physical, social and emotional. For our discussion purposes these classifications are adequate. Each individual exhibits all the above qualities in various degrees

whether he is in the regular or a special class. When considering each group there is the necessity of assuming somewhat normal characteristics in all other areas, although this is very often not true.

1. The Intellectually Exceptional Student

This classification for school considerations encompasses four types or levels of individuals, one at the higher and three at the lower extreme of the intellectual scale. A major difficulty in both defining and describing the characteristics of these groups is the complexity of abilities and the limitations and misinterpretation of the traditional intelligence testing instruments and procedures. I. Q. test scores are most often used to delineate the various categories for lack of better devices.

Intelligence test scores primarily reflect those general abilities related to academic success. Newer multifactor tests which yield subtest measures in the areas of numerical, spatial, abstract reasoning, reading comprehension, etc., hold more promise for future program planning. Use of I. Q. scores in describing the following groups and categories are for general reference purposes only.

On the intellectual scale the usual classifications and approximate percentages in the total population are: (1) institutional feebleminded, 0.2 percent; (2) mentally deficient (trainable), 0.3 percent; (3) educable mentally retarded, 2 to 3 percent; (4) slow learners, 15 to 20 percent; (5) average, 55 to 65 percent; (6) rapid learners, 15 to 20 percent; and (7) gifted, 2 to 7 percent. Most authors and researchers recognize that there are no clear-cut distinctions between groups.

1.1 The gifted or superior student. The present pressures to discover and develop the most able of our youth have led to an intensification of research as well as a flood of articles in newspapers and magazines. Many authors, such as Conant in his The American High School Today, refer to the top 15 or 20 percent as the group to be considered. The group considered for special classes or arrangements generally involves a much smaller percentage, the 2 to 7 percent. The relatively recent interest in the gifted has probably accomplished more in gaining acceptance of the principle of special classes on a segregated basis than any other single development. Various lower I. Q. limits have been suggested, generally 125 to 130 or above. If you want to leave I. Q. out entirely, you would be supported by an NEA bulletin which defines giftedness "as a high order of ability to handle ideas, to produce creatively and to demonstrate social leadership."

Industrial arts can, and should, play an important role in developing this group of students. Serving this group seems to carry certain status factors with it, and it has been readily accepted as a desirable thing to do. However, the traditional programs of industrial arts cannot meet the needs of this group. Adding more projects is not the answer. The students may be the first to question the value of such a program. A challenge must be offered in depth and flexibility; they will demand that the work have a purpose. Our teachers in this area will need a depth of preparation in industrial processes and related technical information as well as science and mathematics.

1.2 The slow learning student. The slow learning group is probably one of the most difficult to properly describe. If we use an I. Q. basis, this group would generally fall from about 80 to 90. The tested ability is very often complicated by emotional and social factors which result in underachievement. McIntosh concluded after a follow-up study of 1,000 boys over a ten-year period that, "other factors such as emotional stability and personal drive were as important as even 20 points in the intelligence scale quotient within the range of 65 to 95."

Many of these students will have a record of failure, or near failure, in their past academic classes which leaves a poor attitude toward school. The largest number of dropouts came from this group. As the stepped-up pressures are brought to bear, more of these people will be retained in school to completion of the twelfth grade or some equivalent. At present, this group makes up the majority of the unemployed in this country. More importantly, they are unemployable without proper training.

In considering the individual with limited ability, we must strive for a functional definition designed to serve as a guide for educational and social action. If the person functions as a limited ability person, then, for all practical purposes, he is of limited ability--regardless of test results, cultural deprivations, emotional inhibitions, deviation in experience or nurture. He must have a certain minimum level of functioning ability to become a self-supporting member of the competitive labor force and member of society. His place as an adult will probably be in industrial or service employment, and it will occur at an earlier age and with less education in both years of attendance and achievement than for those of higher ability. By definition, he has less ability; by direct implication this means, he will need more help in achieving success. Yet, we provide less.

1.3 The educable mentally handicapped. Almost every state provides for special segregated classes for this group. Typically, the class spends most of the day in a single room with a single teacher who has had special preparation. Many states specify an I. Q. range of from 55 or 60 to 75 or 80. The assumption is usually made that most of these students possess the potential for independent, self-supporting adult lives. Class size is generally limited to 15 or 18 and the students usually spend three years with the same teacher in the same room.

Choices must be made when a limited number, and level, of objectives may be achieved. Special education teachers have chosen to give emphasis to occupational competency. Consequently, they start at an early age to interpret the world of work. Where industrial education facilities are not available, many attempt to operate their own program. Some kind of school-employment program is utilized in many high school age programs. The special teachers are generally the first to concede that they are unqualified in these areas. They are attempting to meet the needs of their students. Only recently has there been a trend to provide programs for students over 16 years of age; these are usually referred to as high school programs. The best we can usually expect is good fourth grade reading and mathematics achievement.

2. The Physically Handicapped Student

The classification, or grouping, of students with physical handicaps presents almost the same problem in semantics as the intellectually exceptional. Clinical diagnosis cannot adequately serve for educational purposes. Within the relatively large category are distinct groups, each of which requires special consideration by the educators to meet the same general objectives. All have the same needs for a sense of achievement, recognition for a job well done, security from acceptance as a worthy individual, and the prospect of being able to reach a successful level of economic employment and well being.

As a group, they have conditions which reduce their activities, breadth of experiences, and facility to communicate with and understand the industrial and technological society where they must eventually find their place.

Included in this broad category are students with: (1) impaired vision, 0.1 percent of the population; (2) impaired hearing, 0.6 percent; (3) speech defective, 3.5 percent; (4) nonsensory physically impaired, 2 percent; and (5) disturbed and maladjusted, 2 percent. All levels of intellectual ability may be found in any of the above groups.

2.1 Students with impaired vision. This general category may be subdivided into at least two major subgroups, that is, the blind and the partially sighted. The basis of this distinction is in terms of visual acuity. The partially sighted person is generally defined as one whose vision is between 20/70 and 20/200 in the better eye with correction. The blind person is one whose vision is less than 20/200 with correction. The person who has 20/200 is not totally blind. Even a slight amount of vision can be a tremendous advantage for educational purposes.

A further factor in education and understanding is whether the person was born blind or has lost his sight. Many concepts such as color, perspective, depth, etc., are quite difficult for a person who has never seen. Due to the close individual help necessary, classes are generally limited to 6 to 8 students each.

A wide variety of tools, materials, processes, etc., must be brought into the experience of these persons as the incidental and everyday experiences are denied them. Occupational evaluation and preparation must be started at an earlier age to achieve the obtainable level of success.

2.2 Students with impaired hearing. In the area of impaired hearing, the problem of dual grouping again occurs. Hearing losses occur in degree and the educational problems of those with some functional hearing are distinctly different from those with no hearing. Further, the problem of the student with congenital deafness presents a different kind of communication problem than the student who has lost his hearing after speech has been learned.

The primary problem of this group is one of communication. All means, methods and experiences must be provided to build concepts and

understanding. Two major schools of thought exist as to the best method of approach, the manual and the oral. The manual method depends upon sign language and finger spelling; less effort is made to develop speech. In the oral approach, the major emphasis is given to lip reading and speech development. Each has advantages and disadvantages. A combination of the two is being used in many places. The industrial education teacher can be quite effective in working with the special teacher even though he may not have had special training. Usually the classes are limited to 6 to 10 students each.

2.3 Students with orthopedic handicaps (crippled). The terms orthopedically handicapped or crippled are used to include a multiplicity of clinical problems which are found in both regular and special classes. Some students will have only a mild handicap and need only minor adjustments while others will need special class facilities or may be confined to their home or a hospital type facility. Included in the group are: damaged or missing arms, hands, legs and feet; cerebral palsy; poliomyelitis; osteomyelitis; epilepsy; spina bifida; cardiac; and other conditions and/or disease.

The great individual differences within each group make it necessary that each student's needs be met with a total program of education and therapy specific to the existing physical, intellectual and emotional conditions. The industrial education objectives for these students are basically the same; modification of facilities, equipment and experiences will be necessary to compensate for individual conditions and needs.

3. Students With Social and Emotional Problems

The total group of exceptional students included in this classification are those who because of a broken family situation, a development disturbance, or an economic, social, religious or ethic conflict fail to mature within the requirements of our society. This group will obviously include some of those with all combinations of intellectual and physical conditions previously described.

Many public school systems have established special classes or centers for the treatment and education of students in this group. Others may have come into contact with some agency and be in special homes or institutions. By far the largest group fail to adjust to a regular school situation but move along with varying degrees of unhappiness for both student and teacher until the compulsory attendance age limit and then drop out of school, untrained, unemployed, and unemployable.

A Philosophy of Education for All Students

Educational leaders propose a broad general education for all--equality of educational opportunity--developing each youth to the limits of his potential. Provisions for special occupational preparation or vocational training at public expense has been a long accepted principle whether the reference is to doctors, lawyers, engineers, technicians, typists, machinists, or auto mechanics. Special sections are encouraged in the high school for those who will attend college; this is special education to meet the needs of a special group. Why, then, have groups who have disabilities been omitted from consideration for so long? No one makes the statement that everyone is entitled to an education, except -- . Yet, this has been the practice.

Some provision has been made for training in the practical and vocational areas in all societies. Provision for dealing with special groups of people have also existed. In early times the educated layman was practically unknown. The gifted and handicapped were all a part of the same unschooled and illiterate mass of people. The differences between the extremes in ability were much less apparent than today. The type and kind of training was determined more by birth than ability. The ancient Spartans solved their problems with the handicapped by exposure to the elements. The public school system has been developed in this country to serve all the people. Industrial education professes to be an integral part of that system. Many advances have been made toward this goal; much remains to be accomplished.

The history of industrial education, special education, and the public school system itself is traced to a major degree through services to the groups now called special education. All cite the training programs of: the Kindermann industry schools for the poor, Pestalozzi's farms and schools for the poor and orphaned, Fellenberg's farms and mechanic schools for the poor and orphaned, and the similar program of Dr. de la Howe in the United States. The Ragged Schools of England and Scotland, the Industrial Reform Schools of Europe and the United States, and the emergence of government residential schools for the handicapped are all cited by the historians of special and industrial education as landmarks leading to the present programs.

The very basis for introducing "hand work" into the public school curriculum was to meet the needs of a large group of students who were not being served by the traditional programs. As the philosophy of public education has broadened, we find another large group of students not being served. Almost every state in the union has legislation providing classes for the special groups. They are a part of the public schools. The philosophical argument of whether or not it is democratic to segregate students on the basis of ability or other personal characteristics is past. The practice is accepted as being desirable and necessary to better achieve the objectives of the American public school system. Industrial education has a unique function in achieving these objectives for the exceptional student.

All education must be based on concepts and understandings of a body of content and principles. Specific rules and "project" activities must be carefully developed as a <u>means</u> rather than an <u>end in themselves</u>. The best any teacher, or program, can hope to accomplish is to develop, within each individual, a set of understandings and attitudes, such that, at any future decision point, he will make a better choice than would have been possible without this instruction. Understandings and attitudes are developed through experiences. The handicapped student, by definition, has less opportunity for these experiences, especially in respect to the industrial world. Most special teachers recognize this and attempt to provide such experiences while admitting their inadequacies. If the purpose of industrial education is to interpret an industrial society and its teachers are proficient in the appropriate content and principles, should they not be providing these experiences?

The principle of establishing special sections and classes for the gifted has been readily accepted by industrial education as evidenced by the special classes for pre-engineering students. If the principle of such special sections is sound, then should it not apply to the slow learner or mentally handicapped as well? The fact that the higher ability group has more potential, for themselves and the nation, does not alter the principle. We have accepted the principle of developing <u>each</u> student toward <u>his</u> potential.

The necessity of smaller classes when working with special groups has been widely supported. Class effectiveness is always impaired when too wide an ability range is included in the same class. The rate of learning as well as the level of approach and complexity vary with ability. Evidence indicates that brighter students work to a lower level, rather than improving the group, when a wide spread is included. How many teachers, or administrators, have actually taken the time to develop comparative lists of objectives and criteria; one list to show what may be achieved with slow, average, and gifted learners in the same class and, then, separate lists showing what could be achieved by having separate classes for each? The cry of "dumping ground" will never impress any administrator or school board. An approach based on sound educational philosophy and principles is more effective. Until the industrial education teacher actually submits a written proposal for changing his program to better meet the needs of his students, he does not have a legitimate complaint about the students he gets in his classes.

The process of planning education is one of selecting experiences. Choices must always be made as we can never include the possible and desirable experiences. Where handicapped groups are concerned our choices are more limited. Vocational considerations must start at an earlier age and be given more attention. The same factors that handicap a student limit vocational possibilities and reduce his chances of success within those limitations. The <u>right</u> to a job and to earn a living so that each person may become economically self-sufficient and feel that he is a contributing, worthwhile member of society is as basic as our other freedoms.

A majority of this group will not attend college or other post-secondary programs. Consequently, their last, and only change of preparation for the world of work will be their public school experience. Many will not complete the best of programs; it should be no surprise that a great many more leave a program that does not meet their needs. We have too long said---the student "must profit from the instruction" to be able to enroll; we should say---the student is entitled to a program from which he can profit.

<u>Comments and Questions</u>

A great many aspects of the general relationships between industrial education and special education could be developed at length. Further, specific areas have many problems and questions that need answers. I would like to raise some questions for your consideration in determining future planning.

1. <u>Creativity</u>. Superior creativity, and problem-solving ability, is often cited as a distinguishing characteristic between high and low ability. Creative activity is based on knowledge and principles--the more that are available, the more creativity that is possible. This does not happen automatically, however. A method of approach with a questioning atmosphere must be promoted. Do the present industrial education programs facilitate this atmosphere for all levels and groups? Research by Getzler at the University of Chicago, Torrence at the University of Minnesota and Bruner at Harvard suggest creativity and ability, as presently measured, are somewhat distinct qualities.

2. <u>Teaching method</u>. Common <u>opinion</u> holds that high ability students should be taught on the basis of principles and generalizations while those of lower ability should be taught by drill and repetition. I am sure of <u>no</u>

controlled study supporting such a position. A great many studies, including those by Ray and Rowlett using tasks from the field of industrial education, have reported the principles and generalization method most effective for all ability groups. The level of approach may differ, but the method is the same.

3. Provisions for the gifted. All approaches to program planning for the gifted may be summarized under three general modifications:

    3.1 Acceleration
    3.2 Enrichment
    3.3 Segregation

    All specific programs are applications of one or more of the above. How should they apply in industrial education?

4. Industrial education objectives. Confusion and lack of agreement on what the objectives of industrial education should be weakens all programs. Industrial education cannot be all things to all people at the same time.

    The leisure-time objective or the therapy aspects of industrial education may be the most important for some groups at various ages without any further justification. Can we accept one objective at a time, when necessary and desirable?

5. Teacher education. Teacher education institutions must take the leadership in philosophy and in implementing practices which recognize the right and necessity for providing industrial education for all groups.

    Students should have some knowledge that exceptional children will be a part of their regular experiences. Wherever possible, some actual experience with a special class should be included. After such an experience, many student teachers gain new insights and may desire to work further with such groups. They should encourage those who may be interested to take special preparation.

6. Industrial education curricula. Is the industrial education curriculum designed to develop basic understanding of principles or is it following pretty much a "cookbook" approach, project by project? The physical sciences, mathematics, and languages are developing new approaches on the basis of what they know about learning and their own content. Is the "project", as now used, the most efficient method for regular and special students?

7. The dropout. The school dropout is receiving an increased amount of attention. In Iowa, students with an I. Q. of 120 and above drop out of high school at almost the same percentage rate as all other students. The Great Cities Superintendents Committee, a special NEA committee as well as Conant in his book, Slums and Suburbs, point out the great need for programs in this area. Present programs are not meeting an important need. What would be a more appropriate approach?

A caution is in order. If industrial education personnel justify their programs on the basis that it holds the dropout, then they should expect to get a disproportionate number of students as a last resort measure from school authorities attempting to prevent dropouts. An appropriate program can be developed, but it must be made clear that the regular program is not designed for such objectives.

8. Cooperation with other groups and agencies. Many special programs and agencies are devoted to assisting the handicapped. Vocational rehabilitation, parents associations, community groups, sheltered work shop programs and various institutions are attempting to meet the needs of the exceptional student. Some programs are a part of, or closely associated with, the public school system. Students should be put in contact with other groups for further service; the industrial education teacher may receive direct help in his program, or he may assist in developing outside programs.

   There is a great need for preparing instructors for nonpublic school industrial education programs.

9. Special education is economically sound. Appropriate educational programs for the exceptional student could be justified on a dollar-and-cents basis alone. Any handicapped person must be supported by someone. With proper education and training, most can reach economic self-sufficiency; without it, public funds may have to be expended. The Division of Vocational Rehabilitation reports that ten dollars in income tax is returned for each dollar expended on all services.

Industrial education has been accepted as an important part of all phases of special education. Industrial education teachers have not always accepted special education students as having a place in their program. A close, cooperative relationship is necessary to meet the needs of the students. When we give attention to teaching students and become less concerned about the "labels" involved, a unified program to the benefit of all will result. The principle is as true for the large system which may provide many special classes as it is for the smaller school where allowances for individual differences must be made in one program.

The move to provide more and better programs is well underway. The philosophy of a democratic society demands development of each individual. It is a good investment morally and economically. Some things we know for sure: the exceptional students and adults are with us now and will continue to be; they will find some place in our society; the amount and kind of training they receive will determine that place. Industrial education has an important role in this determination.

I suggest that industrial education has three possible choices in relation to special education:

1. They can go their own way and deny any responsibility to this group in a "vacuum of unreality" and allow other groups and agencies to provide an equivalent training;

2. They can withdraw from the problem and keep the shops running on some predetermined schedule of projects as a thing apart from day-to-day living and learning, or

3. They can develop programs in conjunction with the special classes and groups which can lead to sound objectives, policies and achievements.

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